



F-35 Lightning II Program

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LIGHTNING AMU PERFORMS F-35 UPGRADES DESPITE FULL FLYING SCHEDULE

NELLIS AIR FORCE BASE, Nev. -- Maintainers assigned to the 57th Aircraft Maintenance Squadron Lightning Aircraft Maintenance Unit paired with a contractor field team from Lockheed Martin starting in early May and completed the first on-site block 1B aircraft to 2B upgrade of the U. S. Air Force configured F-35A Lightning II here in early July.

The two aircraft, assigned to the 422nd Test and Evaluation Squadron, were both early low rate initial production versions configured primarily for use as testing platforms.

The 2B upgrade will increase the aircrafts' operating limits; allowing for supersonic flight and expanding the authorized maneuvering envelope. As a result of the upgrade, new weapons systems can be tested on the platform, and improvements in the pilot-to-vehicle interface have been observed.

Typically, upgrades like the task taken on at Lightning AMU are done at an off-site maintenance depot at Hill Air Force Base, Utah, requiring for selected aircraft to be taken out of flight schedule rotation completely for up to six months. By carrying out the process at home station, Lightning AMU saved time, money and flight hours while gaining valuable experience within their ranks.

The first of the newly 2B-upgraded F-35s was towed out of the hangar after just two months without a single flight hour lost.

"We started the planning process with our (operations) months prior to the upgrades," said Master Sgt. Travis Hoogstraten, Lightning AMU lead production superintendent. "Having only eight aircraft assigned to our unit, a 25 percent reduction puts the pressure on the maintainers to keep them flying."

Tech Sgt. Joshua Fidler, Lightning AMU F-35 flight line expeditor, explained that much of that time was waiting for delivery of the necessary parts.

"We had to send the parts out to get modified and wait for them to come back," said Fidler. "If we could've immediately sent the parts out and got replacements, it only would have taken us three weeks (to perform the upgrade)."

A six-month process that upgrades avionics, modules and software with direct benefits like improved pilot vision through helmet display and easier targeting interface, was shown to be achievable in a fraction of the time when the right engineers and Airmen are set to the task. Because of on-site upgrades being done at Lightning AMU, progress is accelerated, experience is built, and valuable Air Force dollars are saved.

"Because Nellis AFB is responsible for much of the F-35 tactics development, upgrading our aircraft to 2B is not only essential to Air Force initial operating capability, but the progression of the joint F-35 program as a whole," said Hoogstraten.

Lightning AMU and the 422nd TES are set to continue upgrading and testing the newest systems available to the platform as the Air Force works toward its goal of declaring F-35 initial operation capability in 2016.